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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,077

03/16/2007

Mark Ellis

HPL-0001

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EXAMINER

ANDERSON, AMBER R

ART UNIT

PAPER NUMBER

3765

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/562,077	<b>Applicant(s)</b> ELLIS, MARK	
	<b>Examiner</b> AMBER R. ANDERSON	<b>Art Unit</b> 3765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2009 and 18 September 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-9,11 and 13-23 is/are pending in the application.
- 4a) Of the above claim(s) 13,16-18 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-9,11,14,15,19,20,22 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's amendment filed April 17, 2009 and election filed September 18, 2009 have been reviewed and considered. The amendments to the drawings overcome the objections raised in the non final office action mailed December 18, 2008. Currently Claims 1-3, 5-9, 11, and 13-23 are pending of which Claims 1-3, 5-9, and 11 have been amended, 13-23 are new, and 13, 16-18, and 21 are withdrawn from consideration for being directed to a non elected species or invention. Applicant's arguments towards the Shinoda et al. reference are moot in view of the new grounds of rejection.

### ***Election/Restrictions***

1. Claims 13 and 21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on September 18, 2009.
2. Newly submitted claims 16-18 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the original claims were drawn to a helmet and not a system.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 16-18 are withdrawn from consideration

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as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 14, 22, and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has not mentioned or rendered obvious a Hall Effect sensor in the specification or drawings as originally filed and additionally has not mentioned or rendered obvious a magnet operationally coupled to the magnetic switch.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 14 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what a Hall Effect sensor is and what the structural limitations are.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**8. Claims 1-3, 7, 9, 11, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata et al. (USPN 6,876,845) in view of Patricelli (USPN 5,317,643).**

Regarding Claim 1, Tabata et al. disclose a sports and training helmet (70) comprising an audio speaker integrated into an interior of the helmet (72); a microphone (71); a power source (803); and a self-contained waterproof unit (804), enclosing electronic elements comprising: an electronic control device including an on/off control (808, 805) and a volume control (801, 807) (wherein the switches and circuitry are located within the waterproof unit and wherein the waterproof unit is within the helmet thereby being waterproof to a certain degree); a radio signal transceiver (73) constructed and arranged to transmit and receive radio signals and convert the received radio signals into an audible sound reproduced by the audio speaker (Col. 4, lines 46-55), and a radio signal transceiver antenna (802). Tabata et al. do not disclose channel selector controls on the self contained waterproof unit. Patricelli teaches a helmet (10)

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which has a radio receiver (14) on the interior of the helmet and comprises volume and a channel selector control (15) in order to change the channel and volume to a users preference and to receive the signal coming in on a specific channel.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the receiver unit of Tabata et al. with a channel selector, as taught by Patricelli, in order to change the channel in order to receiver the signal coming in on a specific channel.

Regarding Claim 2, Tabata et al. disclose wherein the self-contained waterproof unit is coated in at least one material selected from a group consisting of plastics, resin and foam-like substance (804).

Regarding Claim 3, Tabata et al. disclose wherein the power source is a rechargeable battery (wherein the batteries are capable of being recharged).

Regarding Claim 7, Tabata et al. disclose wherein the self-contained waterproof unit is located at a rear portion of the helmet (Fig. 1 & 2).

Regarding Claim 9, Tabata et al. disclose the invention substantially as claimed above. However, they do not disclose wherein the power source comprises a rechargeable power source that is recharged by magnetic induction. It is well known in the art that recharging batteries by magnetic induction is equivalent to recharging

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batteries by exposed terminals or plugs as stated by the applicant's specification (Pg. 5, lines 21-29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the rechargeable battery via standard recharging methods with a rechargeable battery via magnetic induction, as taught by applicant's specification, as a simple substitution of one well known rechargeable battery for another to yield the predictable result of providing a device with batteries capable of being recharged.

Regarding Claim 11, Tabata et al. disclose wherein the microphone is waterproof, such that the microphone is capable of capturing audio signals in a wet environment (71, wherein the microphone is within the helmet thereby being waterproof to a certain degree, Col. 3, lines 36-42).

Regarding Claim 15, Tabata et al. disclose wherein the self-contained waterproof unit is encased in a block of resin (804).

**9. Claims 5, 6, 14, 19, 20, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata et al. (USPN 6,876,845) and Shin Patricelli (USPN 5,317,643) in view of Whiting (USPN 6,406,168).**

Regarding Claim 5, Tabata et al. and Patricelli disclose the invention substantially as claimed above. However, they do not disclose wherein the electronic

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control device comprises at least one magnetic switch that is toggled by the application of a magnetic field. Whiting teaches that buttons, pressure switches, and internal magnetic switches are all equivalent switches.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the buttons of Tabata et al. with a magnetic switch, as taught by Whiting, as a simple substitution of one well known switch means for another to yield the predictable result of being able to operate a device via a switch.

Regarding Claim 6, Tabata et al. and Patricelli disclose the invention substantially as claimed above. However, they do not disclose wherein the electronic control device is operated by at least one communication type selected from a group consisting of infra-red communication and radio communication. Whiting teaches that buttons, pressure switches, and internal magnetic switches are all equivalent switches.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the buttons of Tabata et al. with a magnetic switch, as taught by Whiting, as a simple substitution of one well known switch means for another to yield the predictable result of being able to operate a device via a switch.

Further, it is well known in the art that infra-red communication, radio communication, and magnetic switches are equivalent operational methods for electronic control devices as stated by the applicant's specification (Pg. 3, lines 24-26).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the magnetic switch of Whiting with an infra-red or radio communication, as taught by applicant's specification, as a simple substitution of one well known switch means for another to yield the predictable result of being able to operate a device.

Regarding Claim 19, Tabata et al. disclose a waterproof sports and training helmet (70) comprising a waterproof audio speaker integrated into an interior of the helmet (72 wherein it is within the helmet thereby being waterproof to a certain degree); a waterproof audio microphone (71 wherein it is within the helmet thereby being waterproof to a certain degree); and a self-contained waterproof unit (804) integrated into a rear section of the helmet (Fig. 1), the self-contained waterproof unit comprising: a rechargeable power source (803 wherein the batteries are capable of being recharged), a radio signal transceiver constructed and arranged to transmit and receive radio signals (73, Col. 4, lines 46-55), wherein the radio signal transceiver is electrically connected to the waterproof audio speaker, the waterproof audio microphone and the rechargeable power source (wherein it is understood that the devices are electrically connected to each other via the fact that they rely on each other to operate and perform the specified task, Col. 4, lines 46-55); and an electronic control device including an on/off control (808, 805) and a volume control (801, 807) (wherein the switches and circuitry are located within the waterproof unit and wherein the waterproof unit is within the helmet thereby being waterproof to a certain degree). Tabata et al. do not disclose

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channel selector controls on the self contained waterproof unit or at least one magnetic switch for controlling the on/off control, the volume control and the channel selector control. Patricelli teaches a helmet (10) which has a radio receiver (14) on the interior of the helmet and comprises volume and a channel selector control (15) in order to change the channel and volume to a user's preference and to receive the signal coming in on a specific channel.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the receiver unit of Tabata et al. with a channel selector, as taught by Patricelli, in order to change the channel in order to receiver the signal coming in on a specific channel.

Tabata et al. and Patricelli do not disclose wherein the electronic control device comprises at least one magnetic switch that is toggled by the application of a magnetic field. Whiting teaches that buttons, pressure switches, and internal magnetic switches are all equivalent switches.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the buttons of Tabata et al. with a magnetic switch, as taught by Whiting, as a simple substitution of one well known switch means for another to yield the predictable result of being able to operate a device via a switch.

Regarding Claim 20, Tabata et al. disclose wherein the self contained waterproof unit is coated in at least one material selected from a group consisting of plastics, resin

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and foam-like substance, such that, the on/off control, the volume control and the channel selector control are encapsulated therein (804, Fig. 3, wherein the circuitry for the controls are located inside the casing).

Regarding Claims 14 and 22, Whiting does not disclose wherein the at least one magnetic switch is a Hall Effect sensor. Whiting discloses a reed switch (Col. 7, lines 28-32 and defined by the applicant as passing a magnet over the device to toggle the control). It is well known in the art that Hall Effect sensors and reed switches are equivalent magnetic switches.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the reed switch of Whiting with a Hall Effect sensor as a simple substitution of one well known switch means for another to yield the predictable result of being able to operate a device.

Regarding Claim 23, Whiting does not disclose further comprising a magnet that is operationally coupled to the at least one magnetic switch. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have coupled a magnet to the magnetic switch in order for the device to still function when the wearer is incapable of carrying a magnet to operate the switch.

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**10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata et al. (USPN 6,876,845) and Patricelli (USPN 5,317,643) in view of Shinoda et al. (EP 237,290).**

Tabata et al. and Patricelli disclose the invention substantially as claimed. However, they do not disclose wherein the radio signal transceiver transmits the radio signals in a UHF frequency band. Tabata et al. and Patricelli are silent as to the frequency bands. Shinoda et al. teach a helmet (Fig. 1) with a radio transceiver wherein the radio signal transceiver transmits the radio signals in a UHF frequency band (Col. 5, lines 25-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have transmitted the signal of Tabata et al. in UHF frequency band, as taught by Shinoda et al., as a simple substitution of one well known transmission frequency for another to yield the predictable result of transmitting a frequency from one place to another.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMBER R. ANDERSON whose telephone number is (571) 270-5281. The examiner can normally be reached on Mon-Thur, 8am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Welch can be reached on (571) 272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AMBER R ANDERSON/  
Examiner, Art Unit 3765

February 26, 2010

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/GARY L. WELCH/

Supervisory Patent Examiner, Art Unit 3765